MONTANA BOARD OF MEDICAL EXAMINERS
PO Box 200513, 301 South Park Avenue 4th Floor
Helena, Montana 59620-0513
Phone (406) 841-2380 or (406) 841-2328 FAX (406) 841-2305
E-MAIL dlibsdmed@mt.gov Website: **www.emt.mt.gov**

Terminal Objectives

Endotracheal Intubation Endorsement

Terminal Objectives
for the EMT-Basic Endotracheal Intubation Endorsement *

* This endorsement is inclusive of the EMT-B Airway Endorsement (DLT)

The purpose of the Endotracheal Intubation Endorsement for EMT-B is to provide the EMT-B with the knowledge and skills to manage difficult airways and initiate corrective action.

Patient care should always be based on patient presentation and Montana Prehospital Treatment Protocols.

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FORWARD

The Montana Board of Medical Examiners (BOME) developed the EMT endorsement process to provide the local EMS medical director the ability to expand the individual EMT scope of practice. The BOME has defined the "maximum allowable" skills for each endorsement and established statewide protocols. The endorsement process consists of education and verification.

The local EMS medical director is responsible for verifying an EMT's knowledge and skills for a particular endorsement. This can be accomplished via a training program; or the medical director may take into account an EMT's previous education, skill ability or other personal knowledge to determine whether an EMT meets the endorsement knowledge and skill requirements. The local medical director is responsible for the quality of all endorsement training via direct participation and/or oversight.

The medical director cannot exceed the scope of the endorsement, but may set limits on the ambulance service or the individual EMT. As an example, the medical director might wish the local ambulance service or an individual EMT to utilize pulse oximetry but not cardiac monitoring.

The endorsement material that follows provides the terminal knowledge and psychomotor objectives at the specific endorsement level. The endorsements (specifically at the EMT-Intermediate and EMT-Paramedic levels) may be non-specific in certain areas (such as specific medications or routes of administration) as the Board does not intend to "practice medicine". The medical director "practices medicine" and has the ability to determine the specific's concerning the endorsement. The Board approved protocols define the extent of the local medical directors flexibility: "…*The Board authorizes the service medical director to use the Board approved protocols in their entirety or may determine to limit individual EMT providers function / practice where appropriate and in accordance with provider's abilities. However, the service medical director may not significantly alter (change the performance expectations of the EMT) or expand approved Board protocols without first seeking Board of Medical Examiners approval.*" If the medical director wishes to request the Board to "significantly alter" the protocol there is a process identified in the rules for that to occur.

Many of the endorsements are combinations of each other. Specifically they are: FR-Ambulance includes FR-Immobilization, EMTB-IV Initiation includes EMTB-IV Maintenance, and EMTB-Intubation includes both EMTB-Airway and

EMTB-Monitoring. The endorsement levels at the EMT-Paramedic level are slightly different then at the other levels in that all of the endorsement levels are all subsets of the Critical Care endorsement. Therefore if a Critical Care endorsement is granted to an EMT-P, they have completed all of the other endorsements. This does not work in reverse though, if an EMT-P has all of the endorsement levels but Critical Care, Critical Care is not granted by default.

The endorsement process requires that the medical director complete a specific "verification form" (certificate of completion) documenting that an individual EMT has the knowledge and skills identified at the specific endorsement level. The individual EMT then submits an application to the Board to establish the endorsement on their license. The medical director then has the option of granting permission to the individual EMT to perform the endorsement to the extent defined by the medical director. All forms and endorsement materials can be obtained from the web site; www.emt.mt.gov. Any questions or concerns can be addressed to Ken Threet at (406) 841-2359 or kthreet@mt.gov.

TERMINAL OBJECTIVE SUMMARY

At the completion of this lesson, the EMT-Basic endotracheal intubation endorsement student will be to place an endotracheal tube in any unconscious / unresponsive (no gag response) over the age of 12 years old *****. This endorsement is inclusive of the airway endorsement (DLT).

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Basic will be able to:

Explain the primary objective of airway maintenance.
Identify commonly neglected prehospital skills related to airway.
Identify the anatomy and functions of the upper airway.
Describe the anatomy and functions of the lower airway.
Explain the differences between adult and pediatric airway anatomy.
Define normal tidal volumes for the adult, child, and infant.
Explain the relationship between pulmonary circulation and respiration.
List the factors which cause decreased oxygen concentrations in the blood.
List the factors that increase and decrease carbon dioxide production in the body.
Describe the measurement of oxygen in the blood.
Describe the measurement of carbon dioxide in the blood.

List the concentration of gases that comprise atmospheric air.
List the factors that affect respiratory rate and depth.
Describe the voluntary and involuntary regulation of respiration.
Describe causes of upper airway obstruction.
Define normal respiratory rates for adult, child, and infant.
Describe causes of respiratory distress.
Describe the indications, contraindications, advantages, disadvantages, complications, equipment, and technique for using a dual lumen airway or King Airway.
Describe the indications, contraindications, advantages, disadvantages, complications, equipment, and technique for placing an endotracheal tube.
Describe the special considerations in airway management and ventilation for patients with facial injuries.
Describe the special considerations in airway management and ventilation for the pediatric patient.
Describe how CPAP functions
Describe the CPAP out of hospital indications.
Describe CPAP absolute contraindications.
Describe CPAP relative contraindications.
Describe CPAP hazards.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Basic will be able to:

Perform body substance isolation (BSI) procedures during basic airway management, advanced airway management, and ventilation.
Demonstrate ventilating a patient by the following techniques:
a. One person bag-valve-mask
b. Two person bag-valve-mask
Ventilate a pediatric patient using the one and two person techniques.
Insert a dual lumen or King airway.
Insert an appropriate sized endotracheal tube
Ventilate a patient with a dual lumen airway or King Airway inserted
Ventilate a patient with a endotracheal tube inserted
Set up and assist a patient with a (CPAP) device (not to exceed 5cm H2O)

LESSON PLAN: can be obtained from the EMT-I 99 or Paramedic DOT Curriculum.

RECOMMENDED TIME TO COMPLETE: 3 hours for lecture and skills practice.

RECOMMENDED EQUIPMENT:

Intubation Manikin
Double Lumen Tube and King Airways
Assorted sizes of endotracheal tubes

Laryngoscope
Various sized blades for the laryngoscope
Oxygen Set
Bag-Valve-Mask
CPAP unit

OVERVIEW:

While the major purpose of this endorsement is to prepare the student to correctly intubate an unconscious / unresponsive (no gag response) patient, and utilization of a CPAP device on patients with difficulty breathing; overall airway management is the goal. Airway management beginning from simple patient positional airways, through intubation (ET placement) and utilization of CPAP is the expected outcome.

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VERIFICATION FOR EMT-B ENDOTRACHEAL ENDORSEMENT

Student Name: _____ License Number: _____

I certify that _____ is competent in the following terminal objectives regarding the EMT-Basic Enodotracheal Endorsement. The course or education was conducted according to Board policies and procedures.

COGNITIVE OBJECTIVES	PSYCHOMOTOR OBJECTIVES
Explain the primary objective of airway maintenance. Identify commonly neglected prehospital skills related to airway. Identify the anatomy and functions of the upper airway. Describe the anatomy and functions of the lower airway. Explain the differences between adult and pediatric airway anatomy. Define normal tidal volumes for the adult, child, and infant. Explain the relationship between pulmonary circulation and respiration. List the factors which cause decreased oxygen concentrations in the blood. List the factors that increase and decrease carbon dioxide production in the body. Describe the measurement of oxygen in the blood. Describe the measurement of carbon dioxide in the blood. List the concentration of gases that comprise atmospheric air. List the factors that affect respiratory rate and depth. Describe the voluntary and involuntary regulation of respiration. Describe causes of upper airway obstruction. Define normal respiratory rates for adult, child, and infant. Describe causes of respiratory distress. Describe the indications, contraindications, advantages, disadvantages, complications, equipment, and technique for using a dual lumen or King airway. Describe the indications, contraindications, advantages, disadvantages, complications, equipment, and technique for placing an endotracheal tube Describe the special considerations in airway management and ventilation for patients with facial injuries. Describe the special considerations in airway management and ventilation for the pediatric patient. Describe how CPAP functions Describe the CPAP out of hospital indications. Describe CPAP absolute contraindications. Describe CPAP relative contraindications. Describe CPAP hazards.	Perform body substance isolation (BSI) procedures during basic airway management, advanced airway management, and ventilation. Demonstrate ventilating a patient by the following techniques: One person bag-valve-mask and Two person bag-valve-mask Ventilate a pediatric patient using the one and two person techniques. Insert a dual lumen or King airway. Insert an appropriate sized endotracheal tube Ventilate a patient with a endotracheal tube inserted Ventilate a patient with a dual lumen airway or King Airway inserted. Set up and assist a patient with a (CPAP) device (not to exceed 5cm H2O)

_____ _____

Signature of Medical Director, responsible for the Training Program

PRINTED Name Dated

_____

Montana Physician License Number